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In the Specification

Please amend paragraph 15 to read as follows:

During fusion, the output flow path of the furnace includes conduit 18 leading the byproducts of fusion through a hot copper oxide catalyst 20 operating at a temperature of approximately 650°C, which converts byproducts of fusion, namely CO (carbon monoxide), to CO₂ (carbon dioxide) and H₂ (hydrogen) to H₂O (water). The output conduit 22 of catalyst is coupled to a CO₂ infrared detector 24, which detects oxygen in the form of CO₂. The infrared detector can be of the type disclosed in U.S. Patent Application No. 09/307,111 filed May 7, 1999 and entitled **SWITCHED MODE NDIR SYSTEM**, now U.S. Patent No. 6,326,620, the disclosure of which is incorporated herein by reference. The detector 24 provides an output signal to a microprocessor (not shown), which calculates the amount of oxygen in the sample in a known manner. Output conduit 25 from infrared detector 24 is coupled to a scrubber 26, which eliminates carbon dioxide and water from the flow of fusion byproducts, leaving only the carrier gas and nitrogen exiting through conduit 27, through thermal conductivity cell 28, and vented to the atmosphere at 29. The thermal conductivity cell can be of the type disclosed in U.S. Patent Application No. 09/772,021 filed January 29, 2001, and entitled **CONTROL CIRCUIT FOR THERMAL CONDUCTIVITY CELL**, now U.S. Patent No. 6,357,279, the disclosure of which is incorporated herein by reference, and detects the amount of nitrogen and provides an output signal to the microprocessor of the instrument. Suitable instrumentation, such as used in the commercially available TC500 instrument manufactured by Leco Corporation of St. Joseph, Michigan, can be coupled to the infrared detector(s) and output of the thermal conductivity cell to provide an operator with a readout of the concentration of oxygen and nitrogen in a sample.

Please amend paragraph 27 to read as follows:

Conduit 86 couples the flow of byproducts of fusion from infrared detector 84 to a scrubber 88 which removes H₂O from the flow stream of helium carrier gas and remaining CO₂. A conduit 88 is coupled in a "T" to a conduit 90 to a carrier makeup stream 91 to maintain the pressure and flow rate of gas in conduits 86 and 89 substantially constant after scrubber 88

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(which tends to reduce the pressure significantly). The carrier makeup conduit 90, its operation, and the flow path is described in greater detail in U.S. Patent Application No. 09/714,480 filed on November 15, 2000, and entitled **ANALYZING SYSTEM FOR HIGH ACCURACY NITROGEN DETERMINATION**, now U.S. Patent No. 6,623,699, the disclosure of which is incorporated herein by reference. Conduit 89 is coupled to thermal conductivity cell 92, which provides an output signal representative of the amount of nitrogen in a sample. Cell 92 can be of the type described in U.S. Patent Application No. 09/772,021 filed January 29, 2001, and entitled **CONTROL CIRCUIT FOR THERMAL CONDUCTIVITY CELL**, now U.S. Patent No. 6,357,279, the disclosure of which is incorporated herein by reference, and the output of which is vented to the atmosphere at 93.